

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026728**Date Inspected:** 15-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 12W/13W/C1.2 (Interior)
2. 12E/13E/C1.2/C2 (Interior)
3. 14W/PP128/W3 Lifting Lug Hole W4 (Interior)
4. 14W/PP128/W4 Lifting Lug Hole W3 (Interior)

1. 12W/13W/C1.2 (Interior)

This QA Inspector randomly observed Quality Control Inspector Pat Swain performing Ultrasonic Testing (UT) on OBG section 13W/14W- weld joint C1.2 – C2 from the interior of the OBG. This QA Inspector observed the QC Inspector scan the weld from both faces using a 70 degree transducer the scanning pattern and technique appeared to comply with the contract documents.

This QA Inspector randomly observed ABF welder Fred Kaddu (Welder ID 2188) performing the repair welding operation on an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on OBG section 13W/14W- weld joint C2 from the interior of the OBG. This QA Inspector observed QC Inspector Pat Swain verify that the preheat temperature was at the minimum of 125 Degrees F and that the welding parameters (Amps, Volts, and Travel Speed) were in accordance with WPS D1.5 - 1001 Repair Revision 0. The

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

### 2. 12E/13E/C1.2/C2 (Interior)

This QA Inspector performed Ultrasonic Testing (UT) on the 22 mm side plate on weld section C1.2 and C2 utilizing a G.E. USN 60. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

### 12E/13E/F1 (Interior)

This QA Inspector performed UT testing on the interior of the OBG on edge plate F1 located at 12E/13E. The scanning was being performed using a 70 degree shear-wave transducer from both sides of the weld joint. The techniques utilized for scanning are to determine a defect and sizing (length). No rejectable indications were noted and this QA Inspector generated a TL-6027 UT report for the above weld location.

Orthotropic Box Girder (OBG) section: The QC Documents observed being used by this QA Inspector for the following weld joints appeared to be designated as Seismic Performance Critical Members (SPCM).

### 3. 14W/PP128/W3 Lifting Lug Hole W4 (Interior)

This QA Inspector randomly observed ABF welder Mike Jimenez ( ID 4671) performing the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on “A” deck lifting lug hole 14W /PP128/W3/W4. This QA Inspector observed QC Inspector Sal Merino verify that the preheat temperature was at the minimum of 10 degrees C and that the welding parameters (Amps=270) were in accordance with ABF-WPS-D15-1110A-Revision 2. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the contract specifications.

### 4. 14W/PP128/W4 Lifting Lug Hole W3 (Interior)

The QA inspector made random observations of ABF welder Jorge Lopez, ID# 6149 performing Shielded Metal Arc Welding (SMAW) in the 4G overhead position on Lifting Lug Hole W3 located at 14W/PP128/W4. The QA inspector observed QC inspector Sal Merino monitoring the progress to ensure the welding parameters was in compliance pertaining to ABF-WPS-D15-1110A-Revision 2. The parameters were recorded as (Amperes=130). The QA inspector made subsequent observations throughout the shift to monitor quality. The QA inspector noted that the work was completed on this date and appeared to be in general conformance with the contract documents.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

### Summary of Conversations:

The were no pertinent conversations to report.



### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

---

**Inspected By:** Frey,Doug

Quality Assurance Inspector

---

**Reviewed By:** Levell,Bill

QA Reviewer